

Preventing COVID-19 in Chicago's Sheltered Homeless Population

Data Current as of: May 10, 2020

Individuals experiencing homelessness cannot simply close their doors to COVID-19. The coronavirus spreads rapidly among close contacts, so people living in congregate settings like homeless shelters are at particularly high risk. The City of Chicago is working together with medical providers, shelter operators, academic centers and advocacy organizations to prevent transmission of COVID-19 among Chicago's homeless population, using data to guide our response. This brief describes the most recent findings from the City's widespread testing efforts in homeless shelters.

Summary of Key Findings

- **1,853** shelter residents and staff have been tested for COVID-19 through widespread testing in **27** shelters across Chicago. **471** shelter residents and staff have tested positive for COVID-19.
- On average, the percent of people within a shelter who test positive for COVID-19 is **25%**, similar to results seen in other major cities; however, for the past four weeks, Chicago's average percent positivity rate in shelters with at least one reported case has been **below 15%**.
- We tend to see **lower positivity rates in shelters in repeat rounds of testing**, indicating that efforts to stop transmission within a shelter were effective.

Shelter-Based Testing Strategy

The Chicago Department of Public Health (CDPH) actively tracks cases of COVID-19 among shelter residents and staff members in two ways: (1) we match reports of new cases of COVID-19 to known shelter addresses, and (2) we reach out to shelter managers and partners that work with individuals experiencing homelessness for reports. When we hear of a case of COVID-19 in a resident or staff member, we conduct an investigation to identify close contacts in the shelter. Then CDPH, in partnership with UI Health and Rush University Medical Center, offers shelter-based testing for COVID-19 to all those at risk, even if they have no symptoms. **Unlike clinics or hospitals, which focus on people with symptoms, we prioritize congregate shelters for widespread testing.**

Testing Results: By the Numbers

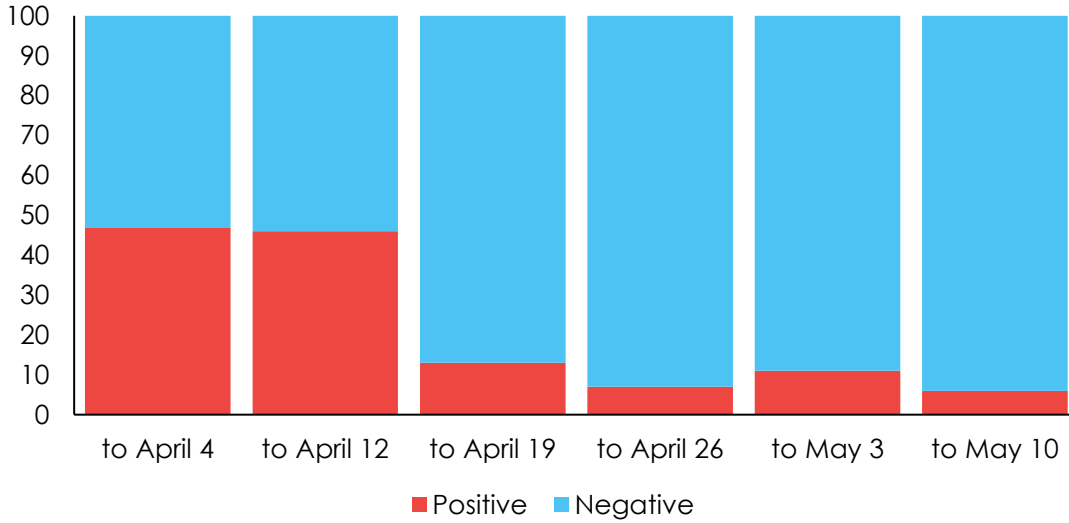
- Number of Shelter Programs Receiving Widespread Testing for COVID-19: **27**
- Shelter Residents/Staff Tested for COVID-19: **1,853**
- Shelter Residents/Staff Tested Positive for COVID-19: **471**
- Overall percent positivity rate = **25%**
- Number of Known COVID-19-related Deaths in Shelter Residents¹: **0**
- Number of Known COVID-19-related Deaths in Shelter Staff²: **2**

¹ In addition to following up with COVID-19 positive residents and staff two weeks after testing, we cross-check all names with COVID-19-related deaths identified by the medical examiner and have not found any matches in residents.

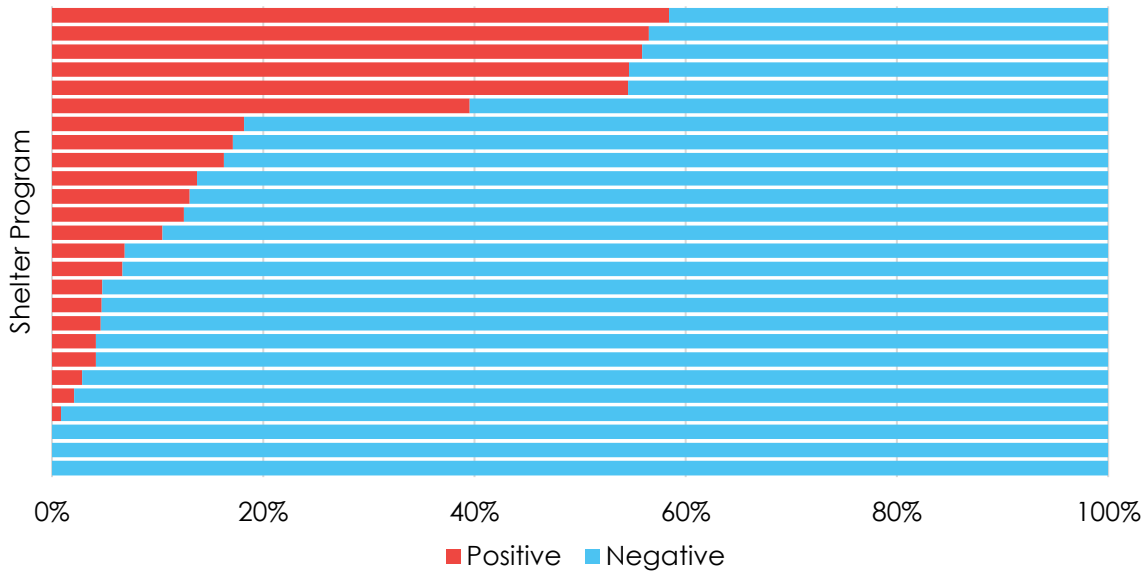
² Staff members who live off-site have exposures outside the shelter. These cases may not always reflect transmission at shelters.

Monitoring Rates of COVID-19 in Shelters

Our data show that, on average, the percent of people who test positive for COVID-19 (the “percent positivity rate”) within shelter programs is decreasing from week to week. That means we are likely seeing a lower rate of spread within shelters and preventing large outbreaks of COVID-19. **For the past four weeks, Chicago’s percent positivity rate in shelters with at least one reported case has been below 15%.**



In shelter programs tested so far, the percent positivity rate ranges from 0% to more than 50%. These results are similar to other major cities, including Boston³, Seattle⁴ and San Francisco⁵.



³ Baggett et al. Prevalence of SARS-CoV-2 Infection in Residents of a Large Homeless Shelter in Boston. *JAMA*. April 2020.
⁴ Tobolosky et al. COVID-19 Outbreak Among Three Affiliated Homeless Service Sites – King County, Washington, 2020. *MMWR*. May 2020.
⁵ Mosites et al. Assessment of SARS-CoV-2 Infection Prevalence in Homeless Shelters – Four U.S. Cities, March 27–April 15, 2020. *MMWR*. May 2020.

Taking Action to Interrupt Transmission

When test results come back for a shelter, we work directly with residents and staff to make sure that anyone who tests positive for COVID-19 has a place where they can isolate safely – either in their home, on site at the shelter, or in a City-provided isolation facility. We also help the shelter team apply public health guidance for infection control, including social distancing, use of personal protective equipment including face coverings, and routine cleaning.

If our testing shows a high percent positivity rate (generally defined as around 5%, but this is decided on a case-by-case basis), we often return to the shelter for a second round of testing. Overall, in shelters where multiple rounds of testing occurred, 32% of people were positive in the first round of testing. In subsequent rounds, the overall percent positivity rate dropped to 12%. **Our data indicate that shelters see lower positivity rates in subsequent testing, in some instances demonstrating that transmission has been completely interrupted.**

Understanding Risk Factors: Shared Sleeping Spaces

We also use our testing data to identify risk factors for COVID-19. Early findings show that the risk of COVID-19 increases as more people share one sleeping space. **The percent positivity rates for individuals living in single rooms is about 12%, but that increases to 32% for people who sleep in dormitories of more than four people.** These findings support the City of Chicago's policies to open decompression shelters, which reduce the number of people in shelters and dormitories, and the efforts to offer individual rooms for people at high risk of serious illness related to COVID-19, including those over the age of 60 and with underlying medical conditions.

Citywide Strategies to Prevent COVID-19 in Homeless Populations

Testing is one important element of our citywide strategy to protect people experiencing homelessness during our COVID-19 response. To learn more about many other ways in which CDPH, the Chicago Department of Family & Support Services (DFSS) and our partners are taking action, please review our strategy brief: Preventing COVID-19 in Chicago's Homeless Population.